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Status of West Coast Salmon & Steelhead

- Pacific salmon have survived for thousands of years through cycles in ocean conditions and weather.
- Watersheds throughout the West Coast are producing fewer and fewer fish in a steady downward trend, despite climate cycles.
- Populations have disappeared in many places where they once flourished--and remaining fish face extinction.

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Salmon and Steelhead ESA Listings

- **In 1990, NMFS began a status review of all West Coast Salmon to provide a sound basis for listing decisions, protective rules, and recovery planning.**

- **NMFS identified 52 populations (ESUs) of salmon in Oregon, Washington, Idaho, and California.**

- **Of those, 26 have been listed as threatened or endangered under the ESA.**

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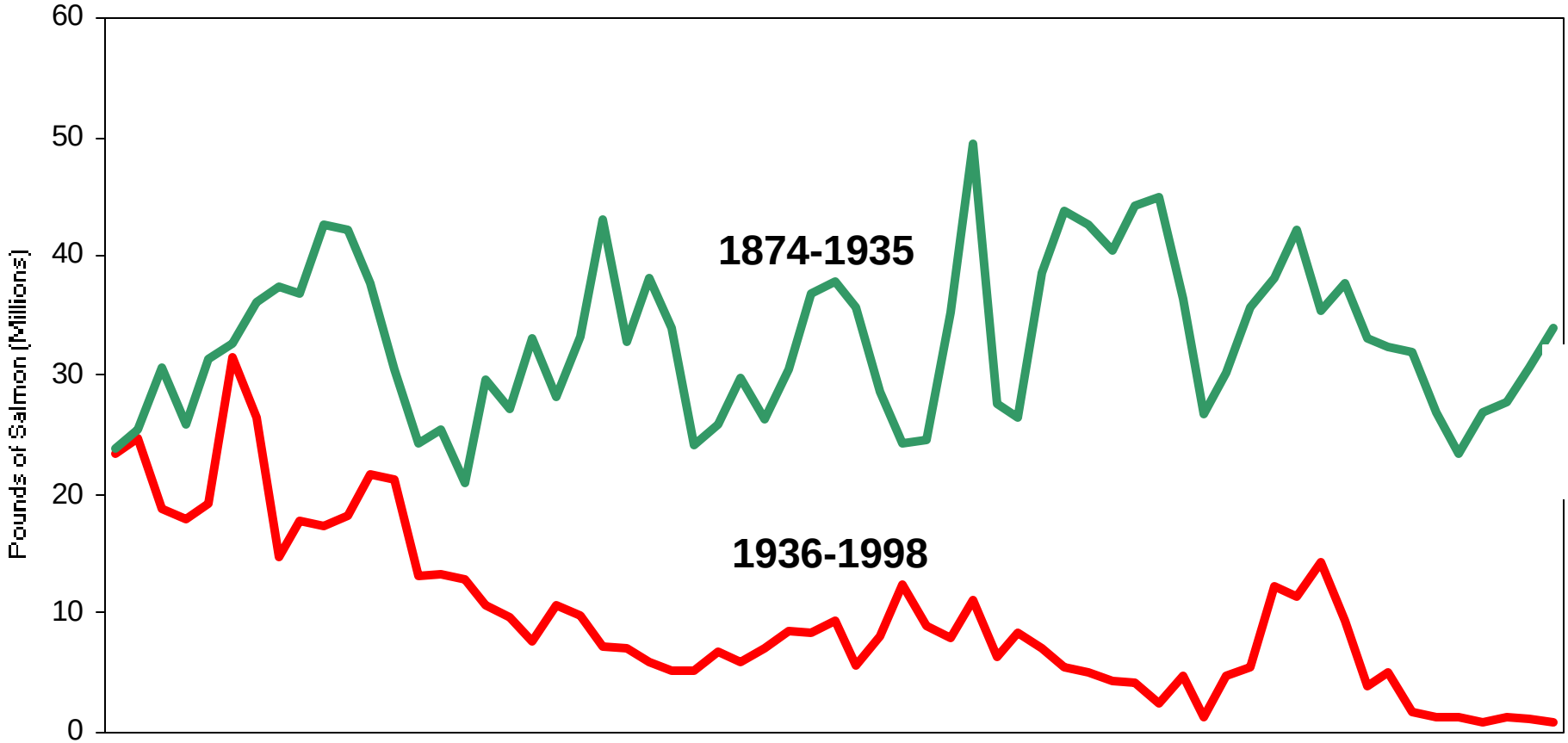
Current Columbia River Salmon Landings vs. Historical Landings



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Factors for Decline

- Predator Concentrations
- Changes in Natural Hydrographs
- Hatchery operations
- Disturbance of vegetation and soils near streams
- Dam operations
- Ocean and inland fisheries
- Erosion and sedimentation
- Exotic species introductions
- Changes in natural water temperatures
- Reduced input & retention of nutrients (vegetation, fish carcasses) in streams
- Armoring stream banks
- Disturbance of material in stream channels
- Absent or inadequate screens on water diversions
- Barriers to fish passage: Culverts, push-up dams, dewatering, etc.
- Channelizing streams & rivers
- Contaminants that make their way into streams
- Loss of habitat

Salmon Conservation Efforts

- **Some local citizens' and state efforts to restore watershed health and conserve salmon have been underway since before the species were listed under the ESA**
- **Now, more government entities, industries, and private citizens are considering their role in salmon recovery**
- **The ESA is designed to provide additional protections for at risk species and their habitats until adequate local protections are in place**

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Conserving Species Under the ESA

1. Listing
2. Critical Habitat
3. Protective Regulations for threatened species--§4(d)
4. Federal agency consultations--§7
5. “Permitting” of take--§10 and §7
6. Enforcement--§9 and §11
7. Recovery Plans
8. Delisting

July 2000 4(d) Rules

- **NMFS signed two final 4(d) rules on June 19, 2000; published in FR on July 10, 2000**
- **One rule covered 14 threatened ESUs of salmon and steelhead in WA, OR, and CA**
- **One rule covered tribal resource management plans**
- **NMFS conducts separate discussions as needed with tribal governments**
- **Focus today is on the non-tribal rule**

Scientific Framework

- **Sections 4(d), 7, 10, and Recovery Planning are based on the same biological concepts and standards**

  - **Viable Salmonid Populations**
  - **Properly Functioning Condition**

VSP: Viable Salmonid Populations

Negligible risk of extinction over a 100-year time frame

Parameters used in evaluating population status:

- **abundance**
- **productivity**
- **spatial structure**
- **diversity**

PFC: Properly Functioning Condition

PFC consists of sustained natural habitat-forming processes needed for long-term survival of species.

Habitat forming processes include:

- **riparian vegetation succession**
- **bedload transport**
- **precipitation runoff pattern**
- **channel migration**

Indicators of PFC

- **May include both measurable variables and narrative criteria**
- **Determined by best available science**
- **Determined on a site-specific basis and in a watershed context**
- **Chosen to detect health of underlying processes, not static conditions**

Application of PFC

- **In general, proposed actions may not:**
  - **impair properly functioning habitat**
  - **further degrade already impaired habitat**
  - **retard long-term progress toward PFC**

Recovery Workshop: Assessment Checklist “Tool”

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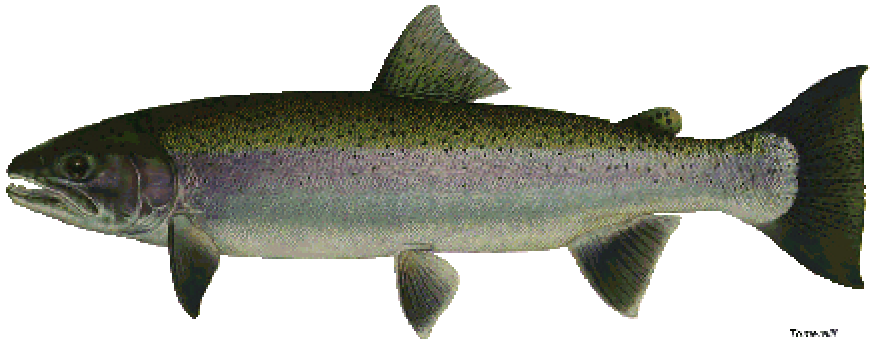

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Introduction to ESA Tools

- Understand environmental baseline
- Understand impact of programs
- Understand options for compliance with ESA: Sections 4(d), 7, and 10

Permit Options

- Refer to Section 4(d), 7, and 10 matrix overhead

Assessment Checklist

- Purpose:
  - Identify and evaluate the actions they carry out or permit;
  - Identify potential ESA liabilities and how their programs can contribute to recovery efforts; and
  - Identify the activities that may need to be modified to reduce or avoid ESA liability, or that may require an ESA permit.

Overall Assessment Process

- First Phase: Establish condition/status of resource within your action area, and identify programs or actions that may impact salmon;
- Second Phase: Analyze programs and permitted actions; and
- Third Phase: Select an appropriate salmon protection strategy.

Key Questions in Assessment

- 1. What programs and actions related to these programs are carried out by the jurisdiction, entity, business, or individual? List the programs and actions.

Key Questions in Assessment

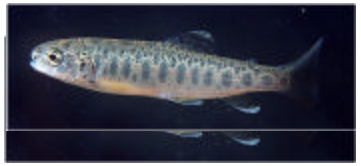
- 2. What authorities does the jurisdiction, entity, business, or individual have related to these programs and actions? List the authorities.

Key Questions in Assessment

- 3. Based on these lists, might any of these actions (either directly or indirectly) adversely affect habitats (e.g., impair breeding, spawning, rearing, migrating, feeding, sheltering) or might they kill or injure the protected species?

Key Questions in Assessment (Continued)

- 4. If yes to the first question, can the program be feasibly modified to avoid adverse effects and take? How can these actions be modified to support salmon recovery?
- 5. If feasible, what is the ESA route to avoid "legal" or "taking" liability and provide for the conservation of threatened salmon and steelhead?



Components of the Assessment Checklist

- Identify different programs and actions
- Relevant to the entity?
- Can the action effect habitat or protected species? If yes, check appropriate column below for each action.
- Identify if there are relevant laws, policies, and ordinances that govern action(s).

How can you use the checklist?

- Workshop Case Study
- Afternoon Break Out Sessions
- After the workshop: Adapt to meet your own needs

4(d) Rule Implementation Binder

- Purpose of the Binder:
  - describes the submittal and review process NMFS will use to evaluate programs to see if they quality for a limit as it is defined in the final 4(d) rule for salmon and steelhead
  - provides guidance about what must be included in a 4(d) limit submittal;
  - identifies the process, criteria and schedule NMFS will use when evaluating program submittal;

Purpose of the Binder

- It identifies whether and how the public will receive notice of the submittal; and
- how a limit will be authorized.
- The Binder does not constitute regulation.
- Individuals should refer to the final 4(d) rule *Federal Register* notice for regulatory language and the *Citizen's Guide to the 4(d) Rule* for more information.

What does the Binder contain?

- Introduction and overview of the 4(d) rule for salmon and steelhead
- Discussion of future amendments to the final 4(d) rule
- General information about submitting a program for a 4(d) limit
- Specific submittal instructions for the 13 limits in the final 4(d) rule

Flow Chart for Limit Submittal Process

- Pre-submittal Guidance
  - what to do before submitting a program
- Submittal Guidance
  - the process after a formal submittal has been sent to NMFS

Information in Limit Chapters

- A summary of the limit
- The affected ESUs
- Regulatory language
- Submittal instructions
- Reporting requirements
- NMFS' submittal review criteria
- NMFS' authorization and notification process
- Contact information for receiving NMFS' assistance

Using the 4(d) Binder

- Workshop case study
- Workshop afternoon break-out sessions
- Submitting a program in the future